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A
PROPOSAL
To determine Our
LONGITUDE.

THE Knowledge of our Longitude and Latitude, enables us always to give a diſtinct Account, on what Part of the Tarraqueous Globe we are.

But before it is poſſible for us to do this, aſter a Storm, in an open Sea, where nothing but Water and the Heavens are to be ſeen, we muſt be made very well acquainted with its Form and Dimenſions; and the Relation of every diſtinct Part of it, to thoſe Celeſtial Signs God has appointed to be viſible to us from every Place.

The firſt of theſe implies knowing ſo much of the Ratio of a Sphere, as determines the Proportion of every Circle of Latitude, as they decline from the Equator to the Pole.

The other, to have ſo much of Aſtronomy and Geography, as to be able thence to know the Time of the Day where we are, and conſequently at any nam'd Place.

In order to make this eaſy, it is abſolutely neceſſary to adjuſt our Terreſtrial Degree, to be exactly parallel to the Celeſtial, and to let it regulate all our other Meaſures.

And to know in thoſe general Meaſures the Longitude of the proper Degree on every Circle of Latitude.

The Difference of which obliges to the ſtricteſt Obſervance of our Latitude; elſe a ſmall Error in Latitude, may become a great one in Longitude, by giving us a falſe Meaſure to count it by.

After which, if our Latitude, Celeſtial as well as Terreſtrial, be counted from the Equator; and the ſame Firſt Meridians be conſented to, it will remove a multitude of Inconveniences we at preſent labour under.

And beginning our Account of Longitude at *Bethlehem*, and in that Part of the Heavens which was Zenithal to it, at the *Time our Lord Jeſus Chriſt vouchſafed there to be born for us*, will indulge our Chriſtian Gratitude, and by fixing our Æra of Place, with that of our Time, facilitate the Calculation of all Obſervations from it.

And then, if by the correct Meaſure of our Degree, the diſtance of every conſiderable Part of the known World, eſpecially Sea-Sorts, be adjuſted; it will be made eaſy to introduce ſuch a Parallel, as will

will render Aſtronomical Obſervations certain and practical to every common Sailor; and without this, all the Encouragement that can be offer'd to diſcover the Longitude, amounts to nothing but an abſolute refuſal of it when diſcover'd.

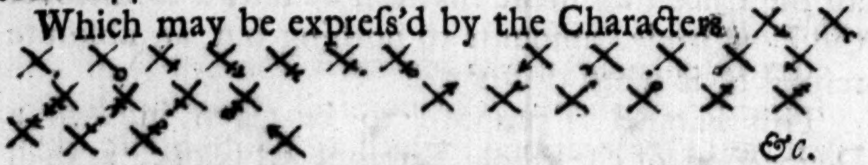
This Parallel is propos'd to be given in ſuch a Delineation of the whole Terraqueous Globe, as ſhall imprint an Idea, and give a Name and Character to every Point of it; and the ſame Name and Character to their ſeveral Zeniths in the Celeſtial Concave (meaning ſuch as are ſo when the firſt Celeſtial Meridian is exactly over the firſt Terreſtrial one.)

Theſe Names and Characters all to remain as a *Moſaic* Work, on which the fix'd Stars, and Geographical Figures are to be diſpos'd; whereby their real Place will always be expreſs'd, and eaſily remember'd; and thereby the Courſe and Velocity of all Bodies moving between the Celeſtial and Terreſtrial Parallel determin'd.

The two Globes being divided from Pole to Pole, each into 1440 equal Parts, may, to imprint an Idea of their Form, as being fifteen Miles in the Equator, and from thence gradually decreaſing till all become extinct in each Pole, be call'd Cloves of Longitude, and expreſs'd by the Character θ in general, and the Particulars be diſtinguiſh'd by the Names and Characters following.

Firſt, reſerving from the Alphabet, D, C, M, to denominate your Tens, Hundreds, and Thouſands, the Units may be call'd Ba, Fa, Ga, La, Na, Pa, Qua, Ra, Sa. Tens, Da, De, Di, Do, Du, Dua, Due, Dui, Duo. Hundreds, Ca, Ce, Ci, Co, Cu, Cua, Cue, Cui, Cuo. Thouſands, Ma, *&c.* compounding theſe, and diſpoſing them in their ſeveral proper Places, always omitting Cyphers, as in Macodo 1440.

Which may be expreſs'd by the Characters

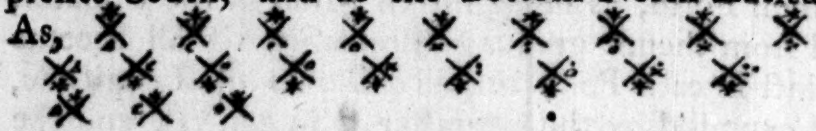


&c.

The Globe's again divided by 720 Parallels to the Equator, gives ſo many Parts, which, to imprint an Idea of their Form, may be call'd Rings of Latitude, and expreſs'd by the Character ◎ in general.

Diſtinguiſhing the Particulars on each ſide the Equator, by the ſame Names as are given to the firſt 360 Cloves of Longitude, with the preceding addition of Tan or Tas, to expreſs North or South, and conſequently Latitude.

The Characters expreſſing them may be the little Figures △ c • ● × : ȯ ⁎ ⁖, plac'd in the Voids of the ſame Croſs, as bore on its Points the Characters of Longitude; the Unit being always plac'd oppoſite to the Star, which at the Top expreſſes South, and at the Bottom North Latitude. As,



The Interſection of theſe two Diviſions cuts the Surface of each Globe into 1.034.800 Parts, which may be call'd Cards, and expreſs'd by the Character ⊔ in general. Each particular Card being diſtinguiſh'd by the repeated Names and compound Characters of the ◊ and ◎ that interſect each other in it, as Ba Tanba ; Da Tanda ; Ca Tanci ; Macodo Tancidua ; &c.

The

The Card is ¼ of a Degree in Longitude, and ¼ of a Degree in Latitude, which in the latter is always fifteen Miles; but differs in the former according to the @ it is upon.

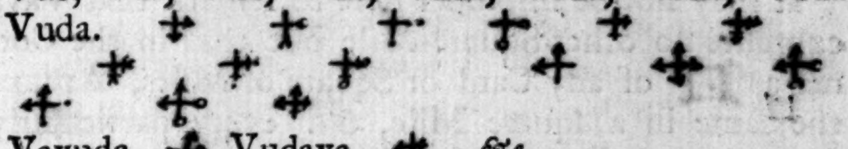
Its Intention is always to mark the firſt Diſtinction of Place, whether in Aſtronomical, Geographical, or Nautical Obſervations, which is ſignify'd by either its Name or Character.

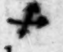
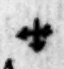
In its Diviſion more particularly to determine our Place, to avoid giving the ſame Epithets to Space that are given Time, the Names of Mile or Gradua, for by either is meant the 60th part of a Degree, be that what it will, Mildua, Min, Mindua, Pin, Pindua, are uſed inſtead of Minutes, Seconds, *&c.*

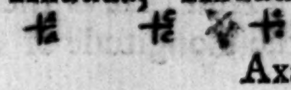
Which are expreſs'd by the Characters, U, X, Z, &, I, S, and the Particulars diſtinguiſh'd by the Names and Characters following.

Theſe Names being the ſame in Longitude as in Latitude, are compounded to denominate both; the Longitude always making the firſt Part of the Compound Name; and their Characters expreſs only Units and Tens in Longitude and Latitude, without particularizing what Latitude; the Card, of which theſe are only Parts, always giving that Diſtinction.

V, Miles, or Graduas, Va, Ve, Vi, Vo, Vu, Vua, Vue, Vui, Vuo, Vuu, Vada, Veda, Vida, Voda, Vuda.



Vavuda  Vudava , *&c.*

X Milduas; Axa, Axe, Axi, Axo, Axu, Axua, Axue, Axui, Axuo, Axuu, Axuuda, Axuude, Axuudi, Axuudo, Axxuudu. 

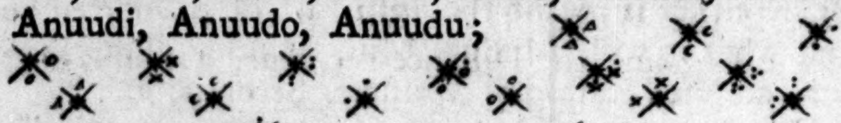
Axa-

Axaaxuudu ✢ Axuuduaxa ✢, &c.

Z, Mins; Za, Ze, Zi, Zo, Zu, Zua, Zue, Zui, Zuo, Zuu, Zuuda, Zuude, Zuudi, Zuudo, Zuudu;

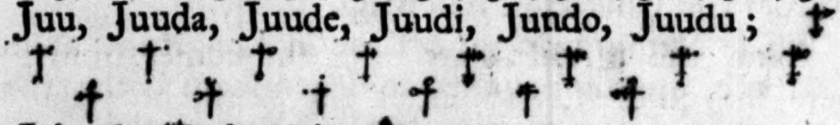
Zazuudu ✕ Zuuduza ✕, &c.

&, Minduas; Ana, Ane, Ani, Ano, Anu, Anua, Anue, Anui, Anuo, Anuu, Anuuda, Anuude, Anuudi, Anuudo, Anuudu;



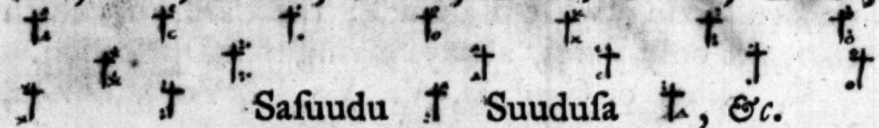
Anaanuudu ✱ Anuuduana ✱, &c.

J, Pins; Ja, Je, Ji, Jo, Ju, Jua, Jue, Jui, Juo, Juu, Juuda, Juude, Juudi, Jundo, Juudu;

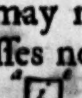


Jajuudu † juudaja †, &c.

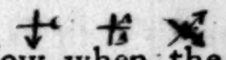
S, Pinduas; Sa, Se, Si, So, Su, Sua, Sue, Sui, Suo, Suu, Suuda, Suude, Suudi, Suudo, Suudu,



Saſuudu † Suuduſa †, &c.

It may not be improper here to remark that Vava expreſſes no other Square-Mile but that in the Corner a  of any Card or Square of Miles, Axaaxa the ſame in a ſquare Mile, &c. every particularly denominated Part having its proper Place in the Square of the preceeding Denomination.

And that as the number of Miles, &c. decreaſe in the Longitude of each Card as they decline from the Equator,

Equator, the leaſt Exceſs of any number of Miles, is always expreſs'd as a Part of the next, (tho' without any regard to that broken number, the following Card always begins in the corner Vava, and goes on with that firſt Mile of Longitude thro' its whole Latitude a—o, with the Longitude proper;) as ſuppoſe the Top of a Card a—e to be one Mile, one Min; and that a Ship Anchors at e, her Place muſt be marked by firſt the Name or Character of the Card, and then her Place in it, Veva Axaaxa Zaza; or, 

Now when the exact Dimenſion of every Card is given, if the Wake of the Ship gives the Courſe, and the Log-line the Diſtance-run true, a Ship ſailing from a Port whoſe Longitude and Latitude is exactly adjuſted, may, if ſhe ſhould meet with no Storm, without any help from Aſtronomical Obſervations, always know her Place by ſtrictly noting the Card, and diſtinct Part of it ſhe comes from; where ſhe quits it, and enters the next; how traverſes that, and proceeds; which either writ down, or marked in the Characters, is her Place without any further Calculation.

And this manner of keeping always a nominal Account of our Place, muſt enable us more diſtinctly to remark all that may be of future ſervice.

I would not here be thought to forget to look up to the Heavens. I know we there have our proper Day and Night and every Part of them mark'd out to us, and that of any other Place, and conſequently the Correction of all our abſolute Time-tellers, when we exactly know the Diſtance between the firſt Celeſtial, and the firſt Terreſtrial Meridians, or any other Parallels, for all are always equally diſtant, or, as muſt happen once in every twenty four Hours, altogether Zenithal to their ſeveral Parallels.

Which Time cannot be too ſtrongly remark'd; and if by Bells, or any other Sound, a general notice of it were appointed to be given, all the World might ſo be taught to know their proper Parallels, and conſequently their Longitude.

For when the Stars are all known by their Places, in the ſeveral Cloves of Longitude; and our Geography rectify'd by a Degree parallel to the Celeſtial one, we may always know our Longitude whenever we ſee the Stars: So that could we all, like the Presbytæ, ſee them in the Day as well as by Night, they would by our Time tell us our Place. And conſidering the manner in which this Defect, we would ſometimes ſo gladly borrow, is accounted for, and the great Improvement of the preſent Age in Opticks, I ſee not why ſuch a Glaſs may not be made as would give us this Advantage.

However, with, or without it, it ſeems much to be wiſh'd, our Seamen were all directed to obſerve the fix'd Stars in ſuch a manner chiefly, as ſeems natural to their purpoſe; as to know how many Stars are on each ſeveral Clove of Longitude, (which at a medium is not three) on what Rings of Latitude they fall, the Compound Names and Characters of which, gives the Name and Character of the Cards they are upon; and conſequently to thoſe who want no more of their Hi-

ſtor

ſtory, the Names of the Stars, in their proper Longitude and Latitude; for the Number of Cards, being above three hundred times as many as we have Stars in any Catalogue, we need not expect often to meet with a multiplicity of Stars in the ſame Card; but if we ſhould, the Diviſions given have abundantly provided for the minuteſt diſtinction of their Places.

Were therefore our Seamen all taught (only by the Names of the Cards they are found upon) readily, by heart, to run over the Names of every Star in every Clove of Longitude, and Ring of Latitude, theſe double Repetitions would imprint and confirm the Idea of their local Diſtinction ſo ſtrongly in their Memories, that it would be ſcarce poſſible for them ever to forget it.

And directing them always to make their Obſervations in theſe Parallels; and in Hemiſpheres, where the Conjunction of all the Cloves are to be ſeen in either Pole, exactly to mark the Pole it ſelf, by a ſtrict obſervance of all the Stars in each Ring round it, tracing them through their ſeveral Cloves down to the very Horizon where they find their Latitude, will keep perpetually in their view the exact (at leaſt) Night-Dial, God has there given us; every Clove of Space anſwering to a Minute in Time.

And every Star being thus known by its own particular Name, which to the meaneſt Capacity expreſſes its Place both in Longitude and Latitude, muſt keep their Minds more intent on their Buſineſs, than obſerving them only in Conſtellations, which unavoidably fill their Heads with foreign Ideas, and lead them out of their way.

And ſuch a general parallel Ground-work being laid, would ſoon determine the Courſe and Velocity of all moving Bodies in the Heavens; adjuſt the Ratio of the Phænomenon between real and apparent Place, and give us a diſtinct and ready Direction to the moſt minute Part of the Earth equally intelligible over its whole Surface.

As each Square of Moſaic-Work contains 3600 leſſer Squares, each diſtinguiſh'd by a Numerical Character expreſſing its Longitude and Latitude, and conſequently its Place; a Circle drawn in any of theſe Squares, gives in the Chords of its Segments (all which are marked in the Moſaic-Work round it) the Diameters of the Circles of the ſame denomination; which divided by the Ratio of the Diameter of a Circle to its Periphery, and multiply'd by the Ratio of the Periphery to the Diameter, gives the proper Longitude of the Circle; and every Circle divided by 1440, the Longitude of the Cards upon it.

The little Squares interſected by the Periphery of the Circle, may by a Parallelogram have their Sections tranſpoſed to the Square of which they were only the $\frac{1}{3600}$ Part, which will give their Fraction in the next Denomination of the Diviſion of the Cards, &c. till we have all the Circles Vaxzanis, (that is in Miles, Milduas, Mins, Minduas, Pins, Pinduas,) and as many Fractions thence as any Body cares to amuſe themſelves with.

By ye same Method
have (perhaps in
most exact Manner)
Content (& consiquent
in ye Square Root
its lowest Fraction,
Square) of ye Circle:
ye Area of all Planes.

nd by supposeing
ur Squares, Cubes;
Content of Solids.

But,

But, as ſuppoſing the Mile (as the 60th of a Degree) 2.000 Yards; the Mildua is only 100 Foot, the Min twenty Inches, the Mindua a Barly Corn, the Pin a 60th, and the Pindua a 3600th part of that Barley Corn in Length; each Square ~~Min~~ containing 12.960.000 ſquare Pinduas, I ſee no neceſſity for any lower nominal Diſtinctions.

q. Mindua

/ a Degree
/ 10 Cards
/ 100 Cards
30 Degrees

JANE SQUIRE.

J S

When ye exact Lo & La of any Islands &c.
far distant from ye Continent, is known:
may it not be of Servis; to place, on ym
(in a Conspicuous=Manner) ye Chrs of
ye Cards they are upon: to distin-
guish them from Others, of ye same
Resemblance.